UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/763,773	02/26/2001	Ahmet Mursit Eskicioglu	RCA 89181	5177

7590 11/30/2004	EXAMINER
Joseph S Tripoli	DADA, BEEMNET W
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ART UNIT	PAPER NUMBER
2135	

PO Box 5312
Princeton, NJ 08540

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _8/9/04_.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-20_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-20_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   In communication filed on August 9, 2004, claim 11 has been amended. Claims

1-20 are pending.

Response to Arguments

2.   Applicant's arguments, filed on August 9, 2004, with respect to the rejection(s)of

claim(s) 1, 12 and 20 have been fully considered and are persuasive. Therefore, the

rejection has been withdrawn. However, upon further consideration, a new ground(s) of

rejection is made.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described
> as set forth in section 102 of this title, if the differences between the subject matter sought to
> be patented and the prior art are such that the subject matter as a whole would have been
> obvious at the time the invention was made to a person having ordinary skill in the art to which
> said subject matter pertains. Patentability shall not be negatived by the manner in which the
> invention was made.

4.   Claims 1 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Park (US Patent 5,689,559) in view of Park (US Patent 5,796,826) (hereinafter referred

to as Park '826).

5.   As per claim 1, Park teaches a method for copying having a scrambled program content component and a control component (see for example; abstract and col 3 ln 61-col 4 ln 8) comprising; receiving, in a recording apparatus, said program (see for example; col 3 ln 61-67); attaching a data item to said control component (see for example; col 3 ln 61-col 4 ln Band fig 3), said data item indicating that said program has been copied (see for example; col 3 ln 25-36). The data item (CP information) contains a field indicating the current generation of the copy, thus indicating that the program has been copied. Park further discloses encrypting said data item and control component (see for example; col 4 ln 1-8).

Park does not explicitly teach encrypting encrypted control component and data item to generate a nested control component. However, within the same field of endeavor Park '826 teaches a method for copy programming having a scrambled program content component [col 2, ln 48-49] and an encrypted control component [col 2, ln 50-53] including said encrypted control component [for example encrypted output of fig 7, unit 11 m G] and a data item [see for example additional information Wi, fig 7] encrypted to generate a nested control component [fig 7, unit 13, output di, col 6 ln 53-67 and col 4, ln 46 – col 5, ln 17]. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to encrypt the encrypted control component and a data item to generate a nested control component as taught by Park '826 and employ it within the copying program of Park. One of ordinary skill in the art would have been motivated to do so because such modification would allow program supplier control the reproducible number of media content, further enhancing security level [see Park '826, col 8 ln 60-67].

6.   As per claim 12, Park discloses managing access to a copy of a restricted program (see for example; abstract) comprising: receiving said restricted program in a processing apparatus (see for example; col 4 In 45-48), said restricted program having a scrambled program content component (see for example; col 4 In 45-58) and a control component (see for example, marker col 4 In 49-54), said control component being encrypted (see for example; col 4 In 49-54); decrypting said control component (see for example; col 4 In 49-54) to obtain a control word and a data item (see for example; control word, col 4 In 54-58 and col 6 In 21-27). The data item (CP information) contains a field indicating the current generation of the copy, thus indicating that the program has been copied. And recording said program content component and control component (see for example; col 4 In 1-19 and col 6 In 51-62). Park further discloses obtaining a de-scrambling key and copy control information (see ibr example; col 4 In 54-60); comparing said copy control information and said data item to determine if said copy is valid (see for example; col 5 In 54-64); and de-scrambling said program content component, using said de-scrambling key in response to a determination that said copy is valid (see for example, col 4 In 18-34 and col 5 In 56-64).

        Park does not explicitly teach a nested control component, said nested control component being encrypted and decrypting said nested control component. However, within the same field of endeavor Park '826 teaches a method for copy programming having a scrambled program content component [col 2, In 48-49] and an encrypted control component [col 2, In 50-53] including said encrypted control component [for example encrypted output of fig 7, unit 11 m G] and a data item [see for example additional information Wi, fig 7] encrypted to generate a nested control component [fig 7, unit 13, output di, col 6 In 53-67 and col 4, In 46 – col 5, In 17] and decrypting said nested control component to generate an encrypted control component and a data item

[see for example, figure 8, output of unit 21, bi, and col 5, ln 16-25]. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to decrypt the encrypted nested control component to generate an encrypted control component and a data item as taught by Park '826 and employ it within the copying program of Park. One of ordinary skill in the art would have been motivated to do so because such modification would allows program supplier control the reproducible number of media content, further enhancing security level [see Park '826, col 8 ln 60-67].

7.   Claims 2-7 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park (US Patent 5,689,559) in view of Park (US Patent 5,796,826) (hereinafter referred to as Park '826) as applied above and further in view of Mandelbaum et al (US Patent 5,544,246) (hereinafter Mandelbaum).

8.   As per claims 2, the combination of Park and Park '826 teaches the method as applied above. However, the combination of Park and Park '826 does not explicitly teach a smart card for encrypting data. Smart cards are well known in the art to provide a plurality of cryptographic functions, including receiving, attaching, and encrypting. Furthermore, smart cards are well known in the art to provide added convenience of being easily replaceable, thus enabling a means of adding new features in a convenient manner [see Mandelbaum, Abstract and col. 6, ln 53-67]. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to combine the teachings of Mandelbaum within the Park and Park '826 combination because it would have provided convenience in updating new features or changing encryption keys to promote added security.

9.   As per claim 3, the combination of Park, Park '826 and Mandelbaum teaches the

method as applied above. Park further discloses control component comprising of a

descrambling key associated with the scrambled program content component (see for

example; col 3 ln 61-col 4 ln 8). Park '826 further discloses an encrypted control

component comprises copy control information, a descrambling key associated with said

scrambling program content [col. 2 ln 47-55].

10.   As per claim 4, the combination of Park, Park '826 and Mandelbaum teaches the

method as applied above. Park further discloses copy control information indicating

never-copy state and copy-once state [col 3 ln 1-4].

11.   As per claims 5-7 and 13-14 the combination of Park, Park '826 and

Mandelbaum teaches the method as applied above. Mandelbaum further discloses using

encryption with a global public key in smart cards (see for example col 6 ln 5367), said

smart card having a corresponding private key stored therein (see for example col 6 ln

52-62). Public keys are well known in the art to be secure in that no communication is

necessary to reveal any secrets in decrypting an encrypted data. It would have been

obvious to one of ordinary skill in the art a the time of the applicant's invention to encrypt

the encrypted control component of Park and Park '826 using a global public key of

Mandelbaum because it would have increased security through lower communication on

revealing the secret key and less burden of administering secrets among parties.

12.   Claims 8-11 and 15-19 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Park (US Patent 5,689,559) in view of Park (US Patent 5,796,826)

(hereinafter referred to as Park '826) and further in view of Mandelbaum et al (US Patent

5,544,246) (hereinafter Mandelbaum) as applied above and further in view of EBU

Project Group B/CA (hereinafter EBU).

13.   As per claims 8, 9 and 15-17, the combination of Park, Park '826 and

Mandelbaum teach the method as applied above. The combination of Park, Park '826

and Mandelbaum does not teach encrypting purchase information. However, EBU

discloses a control component further comprises purchase information (see for example

page 72-73 section 5.1). Channel identification data, event identity data, data and time

stamp data, and billing data are well known in the art to be incorporated in such payment

schemes and are necessary for the determination of charge amount and time of charge

or production in such payment schemes as pay-perview. The concept of billing a

customer for descrambling and viewing or recording of such programs are well known in

the art to provide revenue to providers. EBU further discloses a smart card comprising a

card body with a iolurality of terminals arranged on a surface of said card body in

accordance with one of ISO 7816 (see for example, page 72 section 4.3 paragraph 1)

and PCMCIA card standards (see for example, page 67 section 3.1 paragraph 2). EBU

further discloses deducting the cost of said program from a cash reserve stored in said

smart card to determine a calculated cash reserve (see for example; page 72

paragraphs 1-2) descrambling, in said smart card, said scrambled program content

component using said descrambling key (see for example page 69 section 3.4

paragraph 4) in response to having a positive calculated cash reserve (see for example

page 73 paragraph 1). It would have been obvious for one of ordinary skill in the art at

the time of the applicant's invention to combine the teachings of EBU within the system

of Park, Park '826 and Mandelbaum because it would have provided a means of

collecting payment for services.

14.   As per claims 10-11 and 18, the combination of Park, Park '826, Mandelbaum and EBU teaches the method as applied above. Furthermore, Park discloses a digital video cassette recorder (see for example; DVCR fig 4 and col 7 ln 17-20).

15.   As per claim 19, the combination of Park, Park '826, Mandelbaum and EBU teaches the method as applied above. EBU further discloses a smart card comprising a card body with a plurality of terminals arranged on a surface of said card body in accordance with one of ISO 7816 (see for example, page 72 section 4.3 paragraph 1) and PCMCIA card standards (see for example, page 67 section 3.1 paragraph 2).

16.   Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Park (US Patent 5,689,559) in view of Park (US Patent 5,796,826) (hereinafter referred to as Park '826) and further in view of EBU Project Group B/CA (hereinafter EBU).

17.   As per claim 20, Park discloses managing access to a copy of a restricted program (see for example; abstract) comprising: receiving said restricted program in a processing apparatus (see for example; col 4 ln 45-48), said restricted program having a scrambled program content component (see for example; col 4 ln 45-58) and a control component (see for example, marker col 4 ln 49-54), said control component being encrypted (see for example; col 4 ln 49-54); decrypting said control component (see for example; col 4 ln 49-54) to obtain a control word and a data item (see for example; control word, col 4 ln 54-58 and col 6 ln 21-27). The data item (CP information) contains a field indicating the current generation of the copy, thus indicating that the program has been copied. And recording said program content component and control component

(see for example; col 4 ln 1-19 and col 6 ln 51-62). Park further discloses obtaining a de-scrambling key and copy control information (see ibr example; col 4 ln 54-60); comparing said copy control information and said data item to determine if said copy is valid (see for example; col 5 ln 54-64); and de-scrambling said program content component, using said de-scrambling key in response to a determination that said copy is valid (see for example, col 4 ln 18-34 and col 5 ln 56-64).

Park does not explicitly teach a nested control component, said nested control component being encrypted and decrypting said nested control component. However, within the same field of endeavor Park '826 teaches a method for copy programming having a scrambled program content component [col 2, ln 48-49] and an encrypted control component [col 2, ln 50-53] including said encrypted control component [for example encrypted outp put of fig 7, unit 11 m G] and a data item [see for example additional information Wi, fig 7] encrypted to generate a nested control component [fig 7, unit 13, output di, col 6 ln 53-67 and col 4, ln 46 – col 5, ln 17] and decrypting said nested control component to generate an encrypted control component and a data item [see for example, figure 8, output of unit 21, bi, and col 5, ln 16-25]. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to decrypt the encrypted nested control component to generate an encrypted control component and a data item as taught by Park '826 and employ it within the copying program of Park. One of ordinary skill in the art would have been motivated to do so because such modification would allows program supplier control the reproducible number of media content, further enhancing security level [see Park '826, col 8 ln 60-67].

The combination of Park and Park '826 does not explicitly teach transferring, from a bank, a cash to a smart card. EBU discloses use of a smart card in a conditional access system using a payment scheme (see for example; page 69 section 3.4

paragraph 4 and page 72-73 section 5.1), wherein a cash reserve is transferred, from a

bank (see for example page 74 paragraph 21, to said smart card (see for example page

73 paragraph 1). As for the verification that a cost of said restricted program is less than

the stored cash reserve and deducting the cost of said restricted program from said

stored cash reserve. EBU further discloses such a payment scheme wherein viewing

tokens are on a smart card (see for example; page 73 paragraph 1). The purpose of

such tokens is to pay for the program or event ordered. One of ordinary skill in the art at

the time of the applicant's invention would have realized such verification that the cost of

said restricted program is less than the stored cash reserve before descrambling the

audio/video component is necessary for such a payment scheme to be effective and that

payment before descrambling is the objective of such a payment scheme. It would have

been obvious for one of ordinary skill in the art at the time of the applicant's invention to

combine the payment schemes of EBU within the system of Park and Park '826 because

it would have provided a means of collecting payment for services.

Conclusion

18.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. See PTP form 892.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Beemnet W Dada whose telephone number is (571) 272-

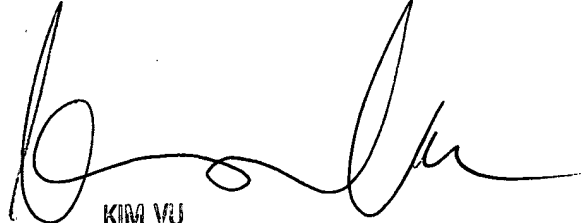3847. The examiner can normally be reached on Monday - Friday (9:00 am - 5:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kim Y Vu can be reached on (571) 272-3859. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free).

Beemnet Dada

November 26, 2004

KIM VU
SUPERVISORY PATENT EX
TECHNOLOGY CENTER